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| APPLICATION NO | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO | CONFIRMATION NO |
|----------------|-------------|----------------------|--------------------|-----------------|
| 10/031,376 | 01/18/2002 | Yuri Ogasawara | 20-704 | 9504 |

7590 06/02/2003

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[REDACTED] EXAMINER

DINH, JACK

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2873

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,376

Applicant(s)

OGASAWARA ET AL.

Examiner

Jack Dinh

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 9-12, 15 and 16 is/are allowed.
- 6) Claim(s) 1, 2, 4-8 and 13 is/are rejected.
- 7) Claim(s) 3 and 14 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 January 2002 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

- 4) Interview Summary (PTO-413) Paper No(s) _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: *DETAILED ACTION*

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Regarding claim 7, the phrase "L-shaped groove" renders the claim indefinite.

Figures 4 and 5 show the "L-shaped" is an improper description of the claimed groove 16f or 16g.

(b) Regarding claim 8, the phrase "folded substantially" renders the claim indefinite.

Figure 16 shows the substantially folded frame members 27 while still being retained within the frame member. Therefore, it is unclear how the frame member can be detached from the frame supporting member when being folded substantially as shown in figure 16.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Motohiro et al. (Japan Patent Publication No. 10-293544).

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

- (a) Regarding claim 1, Motohiro et al. (figure 9) is interpreted as disclosing a head-mounted image display device having an image producing unit (paragraph 0033), wherein the image display device comprising a casing body **2** in which an image producing unit is incorporated, a pair of frame supporting members **3** fixed to the casing body, and a pair of frame members **4** that is members useful in wearing the head-mounted image display device on the head, and is supported by the frame supporting members so that the frame members can pivot freely, wherein the respective pair to the frame supporting members has the same shape.

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

- (b) Regarding claim 4, Motohiro et al. (figure 12) is interpreted as disclosing a head-mounted image display device having an image producing unit (paragraph 0033), wherein the image display device comprising a casing body **2** in which an image producing unit is incorporated, a pair of frame supporting members **3** fixed to the casing

body, and a pair of frame members **4** that is members useful in wearing the head-mounted image display device on the head, and is supported by the frame supporting members so that the frame members can pivot freely, wherein the frame member has facing pins **4d** formed on the inner surfaces of flanges constituting the proximal portion thereof that acts as a fulcrum, and the frame supporting member has pin supporting holes **3c**, into which the pins are fitted, bored therein.

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

(c) Regarding claim 5, Motohiro et al. (figure 7, paragraph 0066) is interpreted as disclosing an axis 23a linking the facing pins formed on each frame member is inclined by a predetermined angle relative to a major axis plane define in the frame member.

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

(d) Regarding claim 6, Motohiro et al. (paragraph 0070) is interpreted as disclosing that the frame member can be attached to or detached from the frame supporting member by elastically deforming the flanges.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motohiro et al. (Japan Patent Publication No. 10-293544) in view of Townsend et al. (U.S. Patent No. 5,181,051).

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

Regarding claim 2, Motohiro et al. (figure 9) is interpreted as disclosing a head-mounted image display device having an image producing unit (paragraph 0033), wherein the image display device comprising a casing body **2** in which an image producing unit is incorporated, a pair of frame supporting members **3** fixed to the casing body, and a pair of frame members **4** that is members useful in wearing the head-mounted image display device on the head, and is supported by the frame supporting members so that the frame members can pivot freely. Motohiro is interpreted as disclosing all the claimed limitations except that the frame member has ribs formed on the outer surface and extended over an effective range in the longitudinal direction of the frame member.

Within the same field of endeavor, Townsend et al (figure 1) is interpreted as disclosing a frame member **30** that has ribs **44** formed on the outer surface and extended over an effective range in the longitudinal direction of the frame member. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to form ribs extended over an effective range in the longitudinal direction on the outer surface of the frame member, as taught by Townsend et al., for the purpose of providing additional structural support to the frame member.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motohiro et al. (Japan Patent Publication No. 10-293544) in view of Ronzani et al. (U.S. Patent No. 6,424,321).

FOR EXAMINATION PURPOSES ONLY – The claimed invention is related to the design structures of a head-mounted image display device. Therefore, only claim limitations that are related to the design structures of the head-mounted image display device will hold patentable weight.

Regarding claim 13, Motohiro et al. (figure 9) is interpreted as disclosing a head-mounted image display device having an image producing unit (paragraph 0033), wherein the image display device comprising a casing body **2** in which an image producing unit is incorporated, a pair of frame supporting members **3** fixed to the casing body, and a pair of frame members **4** that are members useful in wearing the head-mounted image display device on the head, and is supported by the frame supporting members so that the frame members can pivot freely. Motohiro is interpreted as disclosing all the claimed limitations except earphone holders are formed in the distal portion of the frame member. Within the same field of endeavor, Ronzani et al (figure 1) is interpreted as disclosing earphone holders **40L** and **40R** formed in the distal portion of the frame members **34L** and **34R**. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide earphone holders at the

distal portion of the frame members, as taught by Ronzani et al., for the purpose of providing an audio output means for the head-mounted image display.

Allowable Subject Matter

5. Claims 3 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 9-12, 15 and 16 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

- (a) Regarding claim 3, independent claim 1 discloses a head-mounted image display device that is well known from the prior art made of record; however, dependent claim 3 is distinguished over the prior art in that the ribs on each frame member are a plurality of ribs lined in the width direction of the frame member, and a groove defined with the inner surfaces of the ribs serves as a passage groove for an earphone cord.
- (b) Regarding claim 14, independent claim 13 discloses a head-mounted image display device that is well known from the prior art made of record; however, dependent claim 14 is distinguished over the prior art in that the earphone holder includes an opening, to which the speaker surface of the earphone is faces, and claws that clamp the body of the earphone, that are faced to each other in the horizontal direction, and that can deform elastically.

(c) Regarding claim 9, the claimed features of head-mounted image display device that are distinguished over prior art including, *inter alia*, frame spreading magnitude changing devices each of which is attached to the frame member so that the device can move relative to the frame member, and is used to adjust an angle of pivot by which the frame member pivots, wherein the frame spreading magnitude changing devices is moved relative to the frame member so that the device will have distal projections thereof inserted into or withdrawn from gaps between the contacting portions of the frame member, whereby a pivot angle by which the frame member can pivot is adjusted at least in two steps.

(d) Regarding claim 10, the claimed features of head-mounted image display device that are distinguished over prior art including, *inter alia*, frame spreading magnitude changing devices each of which is attached to the frame member so that the device can move relative to the frame member, and is used to adjust a pivot angle by which the frame member can pivot, wherein the frame spreading magnitude changing devices is moved relative to the frame member so that the device will have distal projections thereof inserted into or withdrawn from gaps between the contacting portions of the frame member, whereby the pivot angle by which the frame member can pivot is adjusted to be any position that is not a stepwise specified position.

(e) Regarding claim 15, the claimed features of head-mounted image display device that is distinguished over prior art is where the frame member has distal portion thereof

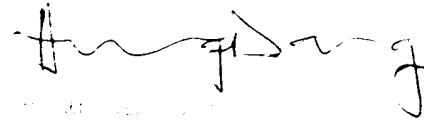
shifted down by a predetermined dimension with respect to a major axis plane defined in the proximal portion of the frame member that acts as a fulcrum.

Other Information/Remarks

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is (703) 605-0744. The examiner can normally be reached on M-T (8:30 AM - 6:30 PM). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

May 24, 2003


Jack Dinh
Patent Examiner


Jack Dinh
Patent Examiner